

TORREYA

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BY J. A. SHAFER

Several years ago, while bringing together material for the formation of a seed collection at the Carnegie Museum, Pittsburgh, Pa., a sample of a seed purporting to be that of *Cassia Marilandica* L. was received from Professor O. P. Medsger, of Jacobs Creek, Pa., which differed markedly, by its obovoid form, from any seed of the species that I had ever seen. Mr. Medsger, in assuring me of the authenticity of this seed, stated that he had collected the flat- as well as the obovoid-seeded form, in Westmoreland Co., Pa. With this explanation the matter rested until I myself collected, on the Ohio River just below Pittsburgh, fruiting specimens yielding the obovoid seed. About the same time, also, similar specimens were sent to me from Cumberland, Md., by Rev. G. Eifrig.

Careful search the following season was unrewarded with flowering specimens of the obovoid-seeded form, although many individual plants of the flat-seeded form were observed through the flowering to the fruiting stage both in their nativity and under cultivation, among the latter being a white-flowered sort. This failure to find the obovoid-seeded form, together with other circumstances, led me to surmise that the plant is a biennial; this, however, I have not as yet been able to verify.

In some thirty descriptions of *Cassia Marilandica* by about twenty-five authors, the form of the seed is mentioned but four times. Darlington* has them "compressed, ovate-oblong"; later † he omits "compressed" and they become "ovate-ob-

* Darlington, *Flora Cestrica*, 432. 1837. [Ed. 1.]

† Darlington, *Flora Cestrica*, 68. 1853. [Ed. 3.]

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long." Torrey * makes them "large, compressed." Chapman, † while making no statement for the species, has his "var. ? Floridana" "orbicular." The more recent authors ‡ are all broad enough in their descriptions to cover both forms.

The few illustrations are quite as unsatisfactory, many of them being meaningless; Dillenius, § Barton, || and Bigelow, ¶ the best of them, however, represent the flat-seeded form.

Just what Linnaeus** had is not clearly defined by his description or by most of his citations; Dillenius' "foliis mimosae siliqua hirsuta" and plate, however, is clearly the flat-seeded form and may be considered as establishing this as the true *Cassia Marilandica* L. Martyn's †† plate, also cited by Linnaeus, is characterless.

As the several names ‡‡ that have been considered synonymous with *C. Marilandica* L. are all referable to the flat-seeded form, or at least have no reference to the obovoid-seeded one, I propose to name the latter for Professor O. P. Medsger, through whose material my attention was first called to it, and would characterize the two species as follows:

CASSIA MARILANDICA L.

Plant erect, perennial, herbaceous, 1–2 m. high, little-branched: stem pubescent, slightly if at all furrowed, yellowish green: leaves with a club-shaped gland near base of the petiole; stipules subulate-filiform, ciliate on their margins, caducous; leaflets 12–20, elliptical, unequally rounded at base, mucronate, with reflexed ciliate margins, yellowish green, glaucous beneath, 3–5 cm. long, one third as wide: inflorescence racemose, pubescent, axillary and terminal, flowers many: calyx-lobes ovate, somewhat petaloid: petals broadly spatulate to obovate, obtuse, bright yellow: sta-

* Torrey, *Flora of the North and Middle Sections of the U. S.* 1: 439. 1824.

† Chapman, *Flora of the Southern United States*, 124. 1897. [Ed. 3.]

‡ Wood, Gray, Britton, Small.

§ Dillenius, *Hortus Elthamensis*, 351, *pl. 260. f. 339.* 1732.

|| Barton, *Vegetable Materia Medica of the U. S.* 1: 137, *pl. 12.* 1817.

¶ Bigelow, *American Medical Botany*, 2: 166, *pl. 39.* 1818.

** Linnaeus, *Species Plantarum*, 378. 1753.

†† Martyn, *Historia Plantarum Rariorum*, 23. *pl. 23.* 1728.

‡‡ *C. acuminata* Moench, *Meth.* 273. 1794; *C. reflexa* Salisb. *Prod.* 326. 1796; *C. succedanea* "Bell, ex herb. Balb.," DC. *Prod.*, 2: 498. 1825.

mens 10, unequal, upper 3 imperfect; anthers brown: ovary covered by long, outward-spreading hairs: pod falcate or nearly straight, linear, much compressed, 7–11 cm. long, 6 mm. wide and about 1.5 mm. thick, freely dehiscent along both sutures, brown, hirsute, the hairs pointing outward, apex acuminate, margins sometimes undulate, septa oblique, externally indicated by sharply defined narrow depressions: seeds 10–15, transverse, orbicular-quadrate, very flat, 5 mm. long, 4 mm. wide, 1 mm. thick, funiculus bent.

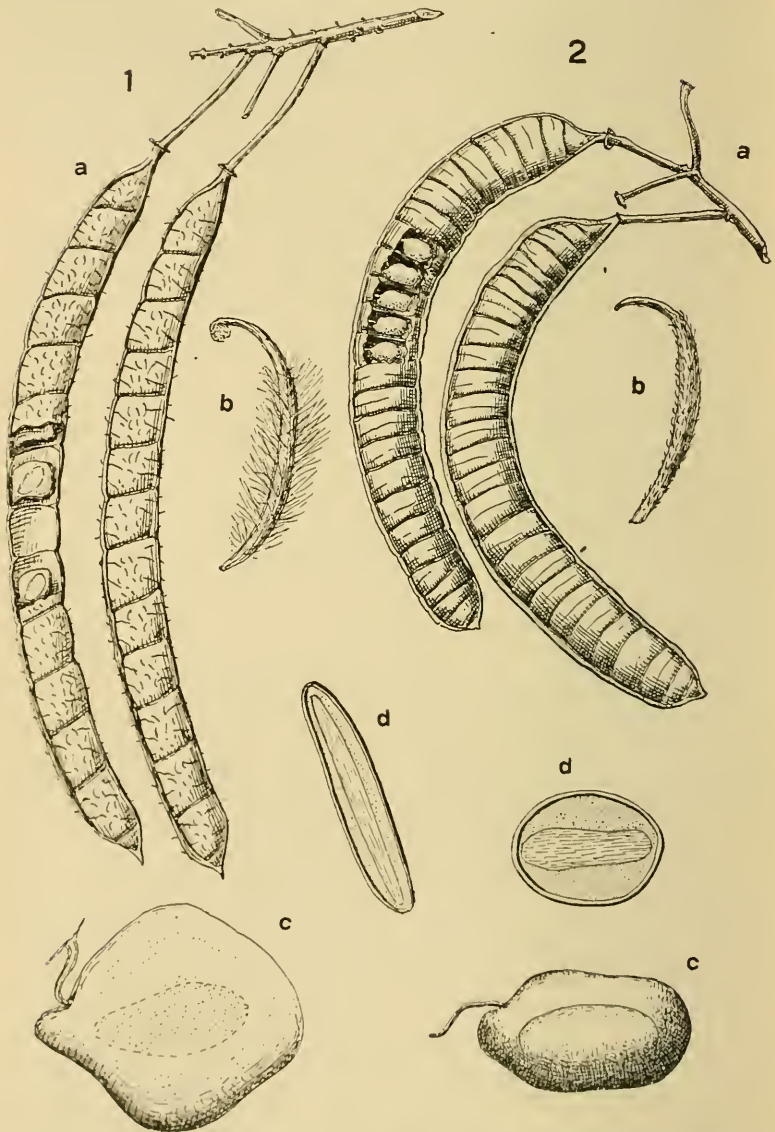
Specimens examined; * MASSACHUSETTS: Shirley, 1882, *W. H. Manning*; Roxbury, 1899, *L. T. Chamberlain*. NEW YORK: Peekskill, no date, *Dr. Torrey*; West Point, 1882, *E. A. Mearns*; Madison Co., 1893, and Herkimer Co., 1901, *H. D. House*. NEW JERSEY: Connecticut Farm, 1820, Torrey Herbarium; Atlantic Co., 1883 (708), *C. A. Gross*. PENNSYLVANIA: Bethlehem, 1832, *C. J. Moser*; Mercer Co., no date, *F. T. Aschmann*; Fayette Co., 1890, *C. C. Mellor*; Lancaster Co., 1883 (708), *Jas. Galen*; McCalls Ferry, 1893, *J. K. Small*; Beaver Co., 1900, Allegheny Co., several stations, *J. A. Shafer*; Westmoreland Co., 1900 and 1902, *Katherine R. Holmes*, and 1904, *J. A. Medsger*. WEST VIRGINIA: Harper's Ferry, 1878, *G. Guttentberg*; Huttonville, 1890, and Minton, 1891, *C. F. Millsbaugh*. VIRGINIA: Wythe Co., 1892, *J. K. Small*. NORTH CAROLINA: Biltmore Herbarium, 1896–7 (301 and 391b), and 1890, *Mary E. Reynolds*. TENNESSEE: Knox Co., 1894, *T. H. Kearney, Jr.*; 1896, *A. Ruth*. KENTUCKY: Fairbank, 1840, *C. W. Short*. Also many specimens in the local herbarium of the Torrey Botanical Club.

Cassia Medsgeri sp. nov.

Plant erect, 0.75–1.5 m. high, scarcely branched: stem longitudinally furrowed, smooth or nearly so, often purplish: leaves with petiolar gland near the base, cylindrical or abruptly constricted at its base; stipules linear-lanceolate, acuminate, caducous; leaflets 8–16, elliptical, unequally rounded at the base, mucronate, with reflexed, entire margins, green, slightly glaucous beneath, 3–5 cm. long, about one-third as wide: inflorescence corymbose, glabrous or nearly so, axillary and terminal, flowers rather few: calyx-lobes somewhat petaloid: petals broadly

* Contained in the herbaria of Columbia University, the New York Botanical Garden, and the Carnegie Museum.

spatulate, sometimes acutish: ovary scarcely covered by short, appressed hairs pointing towards apex: pod black, arcuate,



1. *Cassia Marilandica* L. 2. *Cassia Medsgeri* Shafer. a. Pods, natural size. b. Pistils, $\times 3$. c. Seeds, $\times 8$. d. Transverse sections of seeds, $\times 8$.

broadly linear, scarcely compressed, 8–10 cm. long, 8–9 mm. wide, 3 mm. thick, dehiscent with difficulty if at all, apex blunt, rounded, mucronate, margins subentire, septa transverse, not well defined externally, hairs, if any, at the septal depressions, few and coarse and pointing toward apex: seeds 13–20, transverse, obovoid, 4 mm. long, 2 mm. in greatest diameter, funiculus straight.

Specimens examined; PENNSYLVANIA: Allegheny Co., 1900, *J. A. Shafer*; 1901, *J. M. Milligan*. Westmoreland Co., 1904, *O. P. Medsger* (type). MARYLAND: Cumberland, 1896, *Howard Shriver*; 1901, *Rev. G. Eifrig*. WEST VIRGINIA: Wheeling, 1879, *G. Guttenberg*; Sweet Springs, 1903 (322), *C. S. & Mrs. Steele*. VIRGINIA: Bedford Co., 1872, *A. H. Curtiss*. GEORGIA: Dalton, 1900 (102), *Percy Wilson*. ALABAMA: Clay Co., *F. S. Earle*. IOWA: Ringold Co., 1898, *Fitzpatrick Bros*. MISSOURI: Jackson Co., 1893 (44), and Campbell, 1895 (195), *B. F. Bush*; Riley Co., 1896, *J. B. Norton*. KANSAS: Johnson Co., 1892, *M. A. Carleton*; Ft. Riley, 1892 (547), *E. E. Gayle*. ARKANSAS: Lafayette Co., 1898, *A. A. & E. G. Heller*; Benton Co., 1899, *E. N. Plank*.

Cassia Medsgeri grows in dry gravelly situations, is less tall, less branched, of a darker color and is from ten days to two weeks later in flowering than *C. Marilandica*, from which it is easily distinguished by the differently shaped petiolar gland and stipules, less and differently pubescent ovary, darker, broader, and more curved pod, which is less clearly but more closely marked by the septa and almost indehiscent, also by the very differently shaped seeds.

NEW YORK BOTANICAL GARDEN.

A CASE OF IRREGULAR SECONDARY THICKENING

BY HERBERT MAULE RICHARDS

During last summer, while collecting in the woods in the neighborhood of Lake Placid, New York, the writer noticed that the lateral roots of the "yellow birch" — *Betula lutca* — often